

Remarks/Arguments:

This is a reply to the office action of June 29, 2006.

The examiner indicated she did not consider the foreign patents listed on our first information disclosure statement. We note that the International Search Report listing these documents was transmitted to the PTO from the IB, but apparently the documents themselves were not. Therefore, we enclose a new information disclosure statement, with copies of the five foreign documents which were not considered.

A replacement drawing sheet 1/4 is enclosed to overcome the objection raised at item 1 of the office action. The only changes are the addition of a textual label to element 11 in Figs. 1a and 1b. No new matter was added.

In response to item 4 of the office action, claims 6, 7 and 13 have been amended to improve clarity. In particular, in claim 7, the two references to “switch” now refer to the function of the switch in order to distinguish between them.

With reference to item 6 of the office action, we draw attention to the characteristic features of the apparatus recited in claim 1. Specifically, the apparatus of claim 1 requires “...that the NTC thermistor can effectively be connected in series with the main winding at the start of the switching-on process...”. This feature is neither shown nor suggested in the control circuit of US Patent 4066937 (Pfarrer et al.). In the circuit diagram of Figure 4 of Pfarrer et al., the arrangement of resistors, capacitors, and an NTC thermistor (reference numerals 20, 26, 28, 30, 18e, 60) functions solely to control the high and low speed start windings (12, 14) as specified in the description at column 5 lines 33 to 39, and have no influence on the main winding during the switching-on process. Rather, the description specifies (column 5 lines 39 to 41) that “The main winding 10 is energized through lead line L1, contact 16B, main winding 10

and contact 16 A.” Further, the NTC thermistor of Figure 4 of Pfarrer et al. cannot be connected in series with the main winding.

The above specified phrase of claim 1, referring to the NTC thermistor, continues “in order to limit the starting current through the main winding,...”. Again, this feature cannot be identified in Pfarrer et al. Column 5, lines 41 to 44 merely states that when the low speed contractor (namely contacts 16A, 16B, and 16C) is energized the thermistor has a high resistance in its cold state, thereby limiting the current flow and reducing the start capacitance.

Independent method claim 11 of the present application recites the feature of “reducing, on switching on, the current through the main winding of the motor by means of an NTC thermistor”. As discussed in the above paragraph (albeit in relation to the apparatus claim), no hint or suggestion of such a method step is described in Pfarrer et al.

Thus, the applicant submits that claims 1 and 11 (and by virtue of their dependency, claims 2-10 and 12-16) of the application are novel over US Patent Pfarrer et al.

The following comments pertain to the obviousness rejections at item 8 of the Office Action. The differences between claim 2 of the present application and the alleged closest prior art, Pfarrer et al. are at least those set out in the above novelty arguments. To reiterate, Pfarrer et al. essentially provides an RC system (reference numerals 20, 26, 28, 30, 18e, 60) which facilitates the starting of rotation of the motor. This is achieved by shifting capacitance and thereby changing the phase shift between the main winding and auxiliary winding. If the skilled person were aware of Figure 2 of Strachan, which discloses a capacitor-start and capacitor-run device for controlling the power supplied to the windings of an electric motor, he would have no reason to consider utilizing these teachings in conjunction with the teachings of Pfarrer et al.

This is because there is no conceivable combination of these two prior art teachings that would achieve the aim and function of the present invention, namely to avoid drawing an excessively high current from the network through the main winding during the starting of the motor (see page 2, second paragraph of the application in suit).

Even if the skilled person were to consider utilizing the teachings of Strachan by integrating the power controlling device to the circuit of Pfarrer et al., this would not lead to the circuit claimed in claim 2 of the present application. The features of an “NTC thermistor connected in series with the main winding at the start of the switching-on process in order to limit the starting current through the main winding” would still be absent from the integrated device.

The applicant submits that the obviousness objections raised against claims 3, 8-10 and 12-15 are also overcome for the reasoning advanced above

We believe that current claims 1 -16 are novel and non-obvious over the prior art of record, and that this application is in proper condition for allowance.

Respectfully submitted,

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